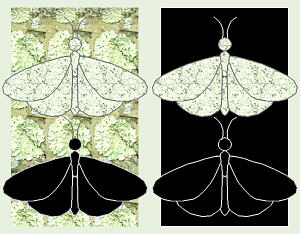
**English Peppered Moths**



One of the best documented examples of natural selection in modern times is the Peppered Moth. Typically, this moth is whitish with black speckles and spots all over its wings. During the daytime, peppered moths are well-camouflaged as they rest on the speckled lichens (a type of fungi) on tree trunks. Occasionally, a few moths have a genetic mutation which causes them to be all black. Black moths resting on light-colored, speckled lichens are not very well camouflaged, and so they are easy prey for any moth-eating birds. Thus, these black moths never get to reproduce and pass on their genes for black color.

However, an interesting thing happened to these moths in the 1800s. With the Industrial Revolution, many factories and homes in British cities started burning coal, both for heat and to power all those newly-invented machines. Coal does not burn cleanly, and creates a lot of black soot and pollution. Since lichens are extremely sensitive to air pollution, this caused all the lichens on city trees to die. Also, as the soot settled out everywhere, this turned the city tree trunks (and everything else) black. This enabled the occasional black moths living in the cities to be well-camouflaged so they could live long enough to reproduce, while the “normal” speckled moths were gobbled up. Studies done in the earlier 1900s showed that the speckled moths were almost non-existent in the cities. Nearly all the moths in the cities were the black form.